

other rivers of the area, though conditions seem exactly the same, this species is rare or absent.

The species recorded from south shore of Great Slave lake really come from a small pond fifty yards back from the beach but connected with the lake proper at high water. Shells are very rare along the beach owing to the fact that, in the break-up of the ice, the latter is driven up on the beach, destroying a large part of the molluscan life.

The fact that casual collecting undertaken while the writer was engaged in other work resulted in increasing the distribution area of seventeen species should encourage all collectors who have an opportunity of visiting northern latitudes. However, owing to the boreal and semi-boreal character of the climate, which imposes a certain amount of uniformity on the fauna, the number of new species found in any one area is not likely to be large.

A NEW SPECIES OF PHYSA FROM TEXAS.

BY WILLIAM J. CLENCH

The following description is based upon four specimens sent to me by L. J. Bottimer, of Liberty, Texas.

PHYSA BOTTIMERI n. sp.

Shell: sinistral, small, subglobular, imperforate, rather thin, corneous. Color: light horn with a rather dull surface.

Whorls: $4\frac{1}{2}$, the last shouldered and very large. Spire: very short, the nuclear whorl dark reddish brown in color. Aperture: large, five-sixths of the total length of the shell, the outer edge slightly straightened. Lip: lower half slightly flaring. A well-developed white callus formed along the edge continuous with the base of the columella.



Physa bottimeri, X 3.

Columella: straight, with a well-defined, slightly thickened fold. Suture: well impressed. Sculpture: composed of

fine growth lines, a few coarser lines spaced at irregular intervals producing a somewhat costated appearance. Cross striae absent.

Type: Length 6.6, width 4.8, aperture length 5.5 mm. (U. of M. No. 31617.)

Cotype: Length 6.3, width 4.8, aperture length 5.5 mm. (Walker, No. 75895.)

Cotype: Length 6.4, width 5.0, aperture length 5.8 mm. (Clench, No. 1378.)

Cotype: Length 5.5, width 4.4, aperture length 4.8 mm. (A. N. S. Phila.)

Type locality: Comanche Spring, Fort Stockton, Pecos Co., Texas.

Remarks: This species of *Physa* is rather small as compared with other species of the genus, especially among the shouldered forms. It agrees with *Physa lordi* Baird in general outline but differs in being smaller in size, in having a white lip callus, and less thickening and folding of the columella. A well-formed callus is found on the type and two of the cotypes; this callus is lacking on the fourth, a juvenile specimen.

Type deposited in the Museum of Zoology, University of Michigan; cotypes in the collection of Dr. Bryant Walker of Detroit, in my own collection, and in that of the Academy of Natural Sciences of Philadelphia.

RADULA TECHNIQUE FOR PHYSA.

BY WILLIAM J. CLENCH
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The following method has been found excellent for the extraction, staining and mounting the radula of *Physa*. As a preliminary preparation in the field the mollusks were killed by boiling and were then preserved in 70% alcohol. Placing the *Physa* in a strainer and then dipping in boiling water for thirty seconds was found to be the best method. This allowed easy extraction of the animals from the shells. When time